

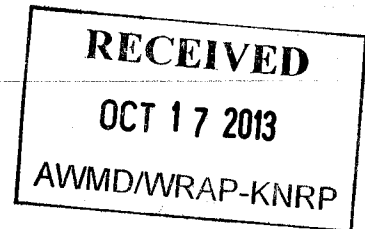
Bruce
Morrison



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov



October 2, 2013

Mr. Don Lininger, Branch Chief
U.S. Environmental Protection Agency Region 7
Waste Remediation and Permitting Branch
Mail Code: AWMD/WRAP
901 North Fifth Street
Kansas City, KS 66101

RE: Operation and Maintenance Inspection Report
Former Solutia J.F. Queeny Plant, St. Louis, Missouri
EPA ID# MOD004954 111

Dear Mr. Lininger:

The Missouri Department of Natural Resources' Hazardous Waste Program and the Missouri Geological Survey completed the Operation and Maintenance Inspection Report for the Former Solutia J.F. Queeny Plant, located in St. Louis, Missouri. A final copy of the report is enclosed with this letter. This report fulfills the commitment for completion and submission.

If you have any questions, please contact Christine Kump-Mitchell, P.E., of my staff at the Missouri Department of Natural Resources, 7545 South Lindbergh, Suite 210, St. Louis, MO 63125, by telephone at (314) 416-2464, (573) 751-3553, or 1-800-361-4827, or by e-mail at christine.kump@dnr.mo.gov. Thank you.

Sincerely,

HAZARDOUS WASTE PROGRAM

Jalal El-Jayyousi, P.E., Chief
Corrective Action and Groundwater Unit
Permits Section

JE:ckm

Enclosure



RCRA



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Mr. Don Lininger
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c: Ms. Christine Jump, Missouri State Coordinator, U.S. EPA Region 7
Bruce Morrison, R.G. , Project Manager, U.S. EPA Region 7 ✓



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October 2, 2013

CERTIFIED MAIL – 7009 3410 0001 8933 3696
RETURN RECEIPT REQUESTED

Lawrence C. Rosen, R.G.
Senior Project Manager
Environmental Operations, Incorporated
1530 South Second Street, Suite 210
St. Louis, MO 63104-4500

RE: Operation and Maintenance Inspection Report
Former Solutia J.F. Queeny Plant, St. Louis, Missouri
EPA ID# MOD004954111

Dear Mr. Rosen:

The Missouri Department of Natural Resources' (Department) Hazardous Waste Program and the Missouri Geological Survey prepared an Operation and Maintenance (O&M) Inspection Report for the Former Solutia J.F. Queeny Plant. A copy of the report is enclosed for your review.

The purpose of the O&M Inspection Report is to evaluate several aspects of the facility's groundwater monitoring program. The Department identified issues in the following areas:

1. Sampling and Analysis Plan.
2. Physical Well Integrity.
3. Field sampling and analysis procedures.
4. Comparison of split groundwater sampling results.

The Department is particularly concerned with the following issues:

1. There are no visible surface seals on 8 monitoring wells (MW-2A, MW-2B, MW-2R, MW-19, OBW-1, VW-1, VW-2, and VW-2B). There are cracked and/or deteriorated surface seals at 4 monitoring wells (MW-3, MW-11B, MW-14, and OBW-2).

2. The protective casings are damaged or do not operate properly at MW-2A, MW-11B, and GM-2. There are 4 wells with damaged bolsters (MW-2A, MW-3, MW-4, and MW-11B). There are 3 monitoring wells that are not protected by bolsters (HW-1, MW-2B, and MW-31B). These bolsters may protect monitoring wells from being damaged.
3. At LPZ-5 the pump was flowing backwards bubbling into the well for about one minute which could have volatilized some sensitive parameters.
4. The U.S. Environmental Protection Agency (EPA) "RCRA Groundwater Monitoring" November 1992 draft technical guidance 7.3.2.6 suggests that peristaltic pumps are not suitable for collecting volatile organic samples. Use of a peristaltic pump can cause sample mixing and oxidation resulting in degassing and loss of volatiles. This method can cause sample missing and oxidation resulting in degassing and loss of volatiles. The facility may want to consider passive sampling methods such as passive diffusive bags or Snap Samplers[®] for future sampling events.
5. Calibration of the water quality meter took place the morning of the sampling event. However, during sampling, the Environmental Services Program (ESP) and facility's measurements varied significantly for oxidation-reduction potential in the first well. The ESP asked the facility to check the meter's calibration in a standard oxygen release potential (ORP) solution, the reading was 223 mV in a 200 standard solution. Facility personnel did not recalibrate their water quality instrument. Daily calibration is recommended; however, a recalibration should have been performed at the time the ORP measurements were noticed to be significantly different than the standard solution.
6. Review of analytical data indicated greater than an order of magnitude difference (in some cases two or three orders of magnitude) between the facility and ESP for several constituents including carbon dioxide in LPZ-5 and detected volatile organic compounds (VOCs). The facility should review the analytical results for the constituents with significant differences and the quality assurance/quality control data from their contract laboratory for the September 6, 2011, sampling event to determine if a specific reason and/or cause of the significant difference can be found.

The facility's VOC results in some wells are below the EPA Maximum Contaminant Levels (MCLs) for groundwater while ESPs VOC results are several orders of magnitude higher than the MCLs. It is extremely important that the facility obtain representative sampling results. If sampling results are considerably lower than actual concentrations this could affect remediation time frames and result in the contamination remaining in place above cleanup levels. An additional split sampling event between the facility and ESP to verify sampling results is recommended.

Lawrence C. Rosen, R.G.

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A summary of the issues are presented in Section 5.0 of the O&M Inspection Report. These issues are discussed in detail in the body of the O&M Inspection Report. Environmental Operations, Incorporated, should address these issues in order to comply with the requirements of Code of Federal Regulations 40 CFR Part 264 Subpart F, incorporated by reference in Code of State Regulations 10 CSR 25-7.264. Please address the issues by submitting a written response or a schedule of response(s) to the Department within 45 calendar days of receiving this letter.

If you have any questions regarding this letter or the O&M Inspection Report, please contact Christine Kump-Mitchell, P.E., of my staff at the Missouri Department of Natural Resources, 7545 South Lindbergh, Suite 210, St. Louis, MO 63125, by telephone at (314) 416-2464, (573) 751-3553, or 1-800-361-4827, or by e-mail at christine.kump@dnr.mo.gov. Thank you.

Sincerely,

HAZARDOUS WASTE PROGRAM



Jalal El-Jayyousi, P.E., Chief
Corrective Action and Groundwater Unit
Permits Section

JE:ckm

Enclosure

c: Bruce Morrison, R.G., Project Manager, U.S. EPA Region 7 ✓
St. Louis Regional Office, Missouri Department of Natural Resources